

Work Order ID 144785-1

April 22, 2016 4:27:22 PM

SPLIT-2

144785

Page 1

Item ID: D2893-1

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Support

Start Date: 5/3/2016 Start Qty: 20.00

20 19

Cust Item ID:

Required Date: 5/17/2016 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals:

Process Plan: MVS

Date:

Tooling:

Date:

Run Start *NR1*

QC:

Date:

APR 25 2016

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D2893

C

100

0.61

100

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

10.40

HAAS CNC vertical machine #1

1-Machine as per Folio FA081
2-Deburr

19 0
DAS
14
9-03
16/05/05

110

0.00

110

QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

19 0
DAS
14
9-03
16/05/05

120

0.00

120

QC8- Inspect parts - second check

QC

Memo

0.40

Quality Control

19 0
DAS
44
9-03
16-05-11

DQA:

Date: 16.05.27



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date: 16/05/17

Work Order update only ☐

Work Order: <u>144785</u> Part No. <u>D2893-1</u> NCR No. <u>16-5787</u>	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☒ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS			
	Skid-tube ☐ Machining ☒ Thermoforming ☐ Large Fab ☐	Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐	Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐	Engineering ☐ Quality ☐ Other ☐	
Date: <u>16/5/17</u>	Step #: <u>100</u>	QTY Effective: <u>1</u>		MRB (QSI042) Approval INSP 12 <u>GP 16/5/17</u>	
Description Work Order Deviation		Disposition			
Thickness 0.150 is down to $\pm$ 0.130 st edges from buffing.		Critical contact area is OK, no issue with fit on aircraft.		Completed By INSP 12 <u>GP 16/5/17</u> Lead hand / Supervisor Approval Verification DAS <u>16/05/17</u> QC / QA Coordinator Approval DAS <u>16/05/17</u>	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☒ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☒ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER: ☐					

Work Order ID 144785

April 22, 2016 4:27:22 PM

144785

Page 2

Item ID: D2893-1

Accept

N900040100

Setup

Start

NS1

Revision ID:

Stop

NS2

Item Name: Support

Start Date: 5/3/2016

Start Qty: 20.00

20

Cust Item ID:

Required Date: 5/17/2016

Req'd Qty: 20.00

20

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run

Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

0.00

130

HandFXtube

Memo

0.00

Hand Finishing Crosstubes

Per note 8 on page 1 of dwg D2893, Prep inner concave surface of support and
apply 3M Scotch-Weld as per dwg.
24h of cure time.

132391

DAS

41

9-89

16-5-11

140

0.00

140

QC

QC3- Inspect Part Finish

Memo

0.20

Quality Control

DAS

38

9-89

MAY 12 2016

170

0.00

170

Packaging

Identify as per dwg & Stock Location: _____

Memo

0.20

Packaging

LOCATION LG050

19

DAS
6
9-89

MAY 12 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Work Order ID 144785

144785

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April 22, 2016 4:27:22 PM

Item ID: D2893-1

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Support

Start Date: 5/3/2016 Start Qty: 20.00

20

Cust Item ID:

Required Date: 5/17/2016 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC21- Final Inspection - Work Order Release	0.00							
180									
QC	Memo	2.00							
Quality Control									

MC MAY 13 2016

MC MAY 13 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

April 22, 2016 4:27:22 PM

Page 1
4

Work Order ID: 144785

144785

Parent Item: D2893-1

D2893-1

Parent Item Name: Support

Start Date: 5/3/2016

Required Date: 5/17/2016

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP: C02.11.26Reformat; Added P/OKJ
IPP D 06.04.19 removed alodine EC
IPP Rev:E Added priming as per Rev B 07-04-30 JLM
IPP F 08.03.19 Re-format EC verified by: DD
IPP Rev:G 08-05-15 add QC14 DD verified by:EC
11.08.04 as per dwg rev.C DD verf:EC
IPP Rev:H

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
DSK078		Manufactured	No			100	Each	12.0000	0.5	10.52632			

DSK078

D2893-1 Turning Detail

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
MAT060	12	
143446	12	

10 *mk 16/05/05*

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

DART AEROSPACE LTD		Work Order:	144785
Description: Ø2.750 Support		Part Number:	D2893-1
Inspection Dwg: D2893	Rev: C	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	2.985	3.005		2.986	2.993	2.992	2.998	2.995
AB	0.440	0.460		.458	.440	.440	.440	.440
AC	0.125	0.160		.150	.147	.147	.147	.147
AD	0.040	0.060		.048	.049	.049	.050	.050
AE	0.188	0.193		.191	.190	.190	.189	.189
AF	0.125	0.160		.140	.140	.140	.140	.140
AG	0.140	0.160		.148	.149	.148	.149	.147
AH	1.360	1.400		1.370	1.369	1.369	1.375	1.373
AI	0.040	0.060		.056	.048	.054	.0485	.054
AJ	1.190	1.230		1.215	1.209	1.216	1.212	1.217
AK	0.010	0.020		.015	.015	.015	.015	.015
AL	0.053	0.073		.063	.063	.063	.063	.063
AM	0.240	0.260		.250	.250	.250	.250	.250
AN	2.518	2.538		2.530	2.528	2.528	2.528	2.528
AO	84.39	90.39		87.390	87.39	87.39	87.39	87.39
AP	0.261	0.266		.261	.263	.263	.263	.263
AQ	0.053	0.073		.063	.063	.063	.063	.063
AR								
AS								
AT								
Accept/Reject								

DAS

Measured by: 14

Date: 11/05/06

9-89 DAS

Audited by: 44

Date: 11-05-11

9-89

Preliminary Approval:

Date:

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	
D	12.07.31	Dwg Rev updated	KJ	

DART AEROSPACE LTD		Work Order:	144785
Description: Ø2.750 Support		Part Number:	D2893-1
Inspection Dwg: D2893	Rev: C	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	16	17	18	19	10
HAAS Section								
AA	2.985	3.005		2.996	2.999	2.994	2.999	2.999
AB	0.440	0.460		.440	.440	.440	.450	.450
AC	0.125	0.160		.150	.150	.150	.150	.150
AD	0.040	0.060		.050	.050	.050	.050	.050
AE	0.188	0.193		.189	.189	.189	.189	.188
AF	0.125	0.160		.142	.142	.140	.140	.140
AG	0.140	0.160		.148	.151	.152	.150	.150
AH	1.360	1.400		1.375	1.375	1.372	1.375	1.375
AI	0.040	0.060		.051	.050	.052	.057	.048
AJ	1.190	1.230		1.215	1.214	1.214	1.211	1.214
AK	0.010	0.020		.015	.015	.015	.015	.015
AL	0.053	0.073		.063	.063	.063	.063	.063
AM	0.240	0.260		.250	.250	.250	.250	.250
AN	2.518	2.538		2.528	2.528	2.528	2.528	2.528
AO	84.39	90.39		87.39	87.39	87.39	87.39	87.39
AP	0.261	0.266		.261	.261	.261	.261	.261
AQ	0.053	0.073		.063	.063	.063	.063	.063
AR								
AS								
AT								
Accept/Reject								

Measured by:	DAS 14 9-89	Date:	16/05/06
Audited by:	44 9-89	Date:	16-05-06
Preliminary Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	
D	12.07.31	Dwg Rev updated	KJ	

DART AEROSPACE LTD		Work Order: 144785
Description: Ø2.750 Support		Part Number: D2893-1
Inspection Dwg: D2893	Rev: C	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	11	12	13	14	15
HAAS Section								
AA	2.985	3.005		2.999	3.000	3.000	2.995	2.995
AB	0.440	0.460		.450	.450	.450	.450	.450
AC	0.125	0.160		.150	.150	.150	.150	.150
AD	0.040	0.060		.050	.050	.050	.050	.050
AE	0.188	0.193		.188	.188	.188	.188	.188
AF	0.125	0.160		.140	.140	.140	.140	.140
AG	0.140	0.160		.152	.147	.145	.149	.148
AH	1.360	1.400		1.373	1.376	1.377	1.375	1.374
AI	0.040	0.060		.053	.050	.052	.050	.052
AJ	1.190	1.230		1.216	1.216	1.220	1.220	1.220
AK	0.010	0.020		.015	.015	.015	.015	.015
AL	0.053	0.073		.063	.063	.063	.063	.063
AM	0.240	0.260		.250	.250	.250	.250	.250
AN	2.518	2.538		2.528	2.528	2.528	2.528	2.528
AO	84.39	90.39		87.39	87.39	87.39	87.39	87.39
AP	0.261	0.266		.261	.261	.261	.261	.261
AQ	0.053	0.073		.063	.063	.063	.063	.063
AR								
AS								
AT								
Accept/Reject								

Measured by: S	Date: 16-5-7
Audited by: DAS 44 9-89	Date: 16-05-11
Preliminary Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	
D	12.07.31	Dwg Rev updated	KJ	

DART AEROSPACE LTD		Work Order: 144785
Description: Ø2.750 Support		Part Number: D2893-1
Inspection Dwg: D2893	Rev: C	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	16	17	18	19	20
HAAS Section								
AA	2.985	3.005		2.995	2.995	2.995	2.995	
AB	0.440	0.460		.450	.450	.450	.450	
AC	0.125	0.160		.150	.150	.150	.150	
AD	0.040	0.060		.050	.050	.050	.050	
AE	0.188	0.193		.188	.188	.188	.188	
AF	0.125	0.160		.140	.140	.140	.140	
AG	0.140	0.160		.147	.146	.149	.147	
AH	1.360	1.400		1.375	1.377	1.374	1.375	
AI	0.040	0.060		.051	.052	.053	.049	
AJ	1.190	1.230		1.220	1.222	1.221	1.217	
AK	0.010	0.020		.015	.015	.015	.015	
AL	0.053	0.073		.063	.063	.063	.063	
AM	0.240	0.260		.250	.250	.250	.250	
AN	2.518	2.538		2.528	2.528	2.528	2.528	
AO	84.39	90.39		87.39	87.39	87.39	87.39	
AP	0.261	0.266		.261	.261	.261	.261	
AQ	0.053	0.073		.063	.063	.063	.063	
AR								
AS								
AT								
Accept/Reject								

Measured by: J	Date: 11-5-7
Audited by: DAS 44 9-89	Date: 10/05/11
Preliminary Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	
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